

### REMARKS

Claims 1-47, 49 and 53-61 are pending in the instant application. Claims 38 and 54 are amended. Claims 48 and 50-52 have been cancelled. Claims 62-69 have been withdrawn.

### 102 Rejections

Claim 54 is rejected under 35 U.S.C. § 102(e) as being anticipated by Watanabe (U.S. Patent 6,763,458). The Applicants have reviewed the cited reference and respectfully submit that embodiment of the present invention as set forth in Claim 54 is neither anticipated nor rendered obvious by Watanabe.

The Examiner is respectfully directed to independent Claim 54 which is drawn to a method of playing audio files on a computer system that comprises:

... when said computer system is on, in sleep mode, in suspend to RAM mode, or in one of power states S0 or S3, executing a play list software program under a full function operating system to create and store a play list comprising a list of compressed audio files residing on one or more drives of a computer system having at least a drive, a CPU, and a memory; and when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, playing the compressed audio files of said

play list, using a mini-operating system stored in BIOS of said computer system and operating independently of a first operating system controlling said computer system, wherein said mini-operating system is operable only to play said audio files.

As the Examiner states in the present office action, Watanabe does not explicitly disclose storing the mini-operating system in BIOS. See Page 5 in the present office action. Further, the Watanabe reference does not explicitly disclose any play list software program to create or store a play list comprising a list of compressed audio files, which will be played under a mini-operating system.

Applicants respectfully disagree with the Examiner about the arguments, "[s]toring this digital audio player program in the ROM/BIOS would have been obvious to one of ordinary skill in the art." Applicants understand that the Watanabe reference discloses a general-purpose computer with a secondary operating system. However, the Watanabe reference does not disclose, suggest or teach that the secondary operating system is stored in BIOS of the general-purpose computer system. In fact, referring to the abstract and Col. 1, Line 45-Col. 16, Line 20, the Watanabe reference discloses a computer system with a hard disk having three partitions. Two operating systems are located respectively on the second and the third partitions, see Col. 16,

Lines 5-6. Applicants respectfully submit that two operating systems on two partitions of a hard drive in the Watanabe reference actually teaches away from the claimed invention of having a secondary operating system stored in BIOS.

Furthermore, Applicants respectfully disagree "Applicant acknowledges that storing this in any ROM based memory is a known alternative to storing in the BIOS." In disclosure P. 12, it states, "[i]n this configuration the mini-OS 80 is stored in the BIOS, although those skilled in the art will recognize that the mini-OS could alternatively be stored in its own ROM (either within special purpose circuit 40 or external to it), a hard disk, or other media." Therefore, Applicants respectfully submit that the statement in the Office Action mischaracterizes the actual statement in the application. Furthermore, the application only discloses alternative embodiments, not the equivalents of claimed elements. Most importantly, the claims should be evaluated by their limitations.

Accordingly, Applicants respectfully submit that nowhere in the Watanabe reference is a computer system adapted to play audio files and provided with a second operating system stored in BIOS

### 103 Rejections

Claims 1-20, 31-32, 38, 40-45, 47, 49, 53, and 55-61

Claims 1-20, 31-32, 38, 40-45, 47, 49, 53, and 55-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Watanabe (U.S. Patent 6,763,458). The Applicants have reviewed the cited reference and respectfully submit that embodiments of the present invention as set forth in Claims 1-20, 31-32, 38, 40-45, 47, 49, 53, and 55-61 are neither anticipated nor rendered obvious by Watanabe.

The Examiner is respectfully directed to independent Claim 1 which is drawn to a computer system adapted to play audio files that comprises:

... a system CPU; memory; at least one drive comprising compressed audio data, said compressed audio data residing in one or more audio files; a play list software program for selecting and storing a play list comprising one or more of said audio files; a first operating system adapted to control at least said system CPU and said memory; and a second operating system, said second operating system being stored in BIOS and adapted to retrieve said play list and cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress the compressed audio data of said file

and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Independent Claims 2-19, 38, 53-56, 58 and 60 recite limitations similar to those recited in Claim 1. Claims 31-32 depend from independent Claim 20 and recite additional limitations of the claimed invention. Claims 39-44 and 47 depend from independent Claim 38 and recite additional limitations of the claimed invention. Claim 61 depends from independent Claim 60 and recites additional limitations of the claimed invention.

As the Examiner states in the present office action, Watanabe does not explicitly disclose storing the second operating system stored in BIOS. See Page 5 in the present office action. However, Applicants respectfully disagree with the Examiner about the argument, "[s]toring this digital audio player program in the ROM/BIOS would have been obvious to one of ordinary skill in the art." Applicants understand that the Watanabe reference discloses a general-purpose computer with a secondary operating system. However, the Watanabe reference does not disclose, suggest or teach that the secondary operating system is stored in BIOS of the general-purpose computer system. In fact, referring to the abstract and Col. 1, Line 45-Col. 16, Line 20, the Watanabe reference discloses a computer system with a hard disk having three partitions. Two operating systems are

located respectively on the second and the third partitions, see Col. 16, Lines 5-6. Applicants respectfully submit that two operating systems on two partitions of a hard drive in the Watanabe reference actually teaches away from the claimed invention of having a secondary

Furthermore, Applicants respectfully disagree with the Examiner about the argument, "Applicant acknowledges that storing this in any ROM based memory is a known alternative to storing in the BIOS." In disclosure P. 12, it states, "[i]n this configuration the mini-OS 80 is stored in the BIOS, although those skilled in the art will recognize that the mini-OS could alternatively be stored in sits own ROM (either within special purpose circuit 40 or external to it), a hard disk, or other media." The application only discloses alternative embodiments, not of the equivalents of claimed elements. The claims should be evaluated according to their limitations.

Accordingly, Applicants respectfully submit that nowhere in the Watanabe reference is a computer system adapted to play audio files that includes a second operating system stored in BIOS and that causes a system CPU to decompress compressed audio data, taught or suggested as set forth in independent Claims 1-19, 38, 53, 55-56, 58 and 60.

Other limitations recited in the aforementioned claims that are not taught or suggested by the Watanabe reference include a

play list software program that selects and stores a play list, controls the CPU and memory, retrieves the play list, causes the drive to read a file and causes the CPU to decompress the audio data, as is recited in independent Claims 1-19, 38, 53, 55-56, 58 and 60 of the present invention. Because of the deficiencies of Watanabe discussed above, Applicants respectfully submit that Watanabe does not provide an adequate basis for rejection of Claims 1-19, 38, 53, 55-56, 58 and 60 under 35 U.S.C. §103 and, as such, 1-19, 38, 53, 55-56, 58 and 60 are allowable. Accordingly, the Applicants respectfully submit that Claims 31-32, 39-44 and 47 and 61 dependent on Claim 20 (not rejected under this section), 38 and 60 respectively are likewise allowable as being dependent on allowable base claims.

Claims 20-28 and 34-37

Claims 20-28 and 34-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175). The Applicants have reviewed the cited reference and respectfully submit that embodiments of the present invention as set forth in Claims 20-28 and 34-37 are neither anticipated nor rendered obvious by Birrell.

The Examiner is respectfully directed to independent Claim 20 which is drawn to computer system adapted to play audio files and run under an operating system that comprises:

...a system CPU; memory; at least one drive comprising compressed audio data; and an audio controller coupled to said system CPU, memory and drive; said audio controller operating independently of said operating system, being adapted to cause said drive to read said compressed audio data, to cause said system CPU to decompress said compressed audio data, thereby providing decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Applicants respectfully submit that Birrell does not disclose any audio controller adapted to cause the drive to read the compressed audio data, to cause the CPU to decompress the compressed audio data and adapted to be operated independently of a operating system. After reviewing the Birrell reference, Applicants respectfully submit that the disk controller 106 in the Birrell reference cannot be operated without control programs. In fact, Applicants cannot find any description related to the disk controller 106.

Applicants respectfully submit that Birrell fails to disclose the claim limitations. Consequently, the embodiments of the Applicants' invention set forth in Claim 20 are neither anticipated nor rendered obvious by Birrell.



Furthermore, Applicants hereby traverse the finding by the Examiner as "official notice" that it would have been obvious to store the decompressed data prior to the A/D conversion. Applicants respectfully assert that the taking of "official notice" is inappropriate since it is not suggested or rendered obvious by the Birrell reference for the use of a second operating system for accessing compressed data, and decompressing the data. Applicants respectfully requests that the Examiner produce a prior art reference in lieu of official notice.

Applicants also respectfully submit that Birrell et al. do not anticipate or render obvious the present claimed invention as is recited in Claims 21-28 and 34-36 which depend from Claim 20. Consequently, these claims overcome the rejection under 35 U.S.C. 103(a) as being dependent on an allowable base claim.

Applicants respectfully submit that Claim 37 includes similar limitations as claimed in Claim 20, i.e., an audio controller operating independently of an operating system and being adapted to cause the system CPU to decompress the compressed audio data, which Birrell does not anticipate or render obvious. Consequently, Claim 37 overcomes the rejection under 35 U.S.C. 103(a).

#### Claims 29, 30 and 33

Claims 29, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,322,175) in view of Alexander (U.S. Patent 6,380,968). However, Alexander does not teach or suggest a modification of Birrell that would remedy the deficiencies of Birrell discussed above. Therefore, It is respectfully submitted that neither Birrell, Alexander nor their combination render obvious a computer system comprising an audio controller operating independently of a operating system as presently claimed in Claims 29, 30 and 33.

#### Claim 39

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Patent 6,763,458) in view of Birrell (U.S. Patent 6,322,175). However, Birrell does not teach or suggest a modification of Watanabe that would remedy the deficiencies of Watanabe discussed above. Therefore, It is respectfully submitted that neither Watanabe, Birrell nor their combination render obvious a mini-operating system storing in BIOS and being operable only to play compressed audio data as presently claimed in Claim 39.

#### Claim 46

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Patent 6,763,458) in view of Alexander (U.S. Patent 6,380,968). However, Alexander does not teach or suggest a modification of Watanabe that would remedy

the deficiencies of Watanabe discussed above. Therefore, It is respectfully submitted that neither Watanabe, Alexander nor their combination render obvious a mini-operating system storing in BIOS and being operable only to play compressed audio data as presently claimed in Claim 46.

### Conclusions

In light of the above-listed remarks, the Applicants respectfully request allowance of the remaining claims.

The Examiner is urged to contact the Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,

MURABITO HAO AND BARNES LLP

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William A. Zarbis  
Reg. No.: 46,120

Two North Market Street  
Third Floor  
San Jose, CA 95113

(408) 938-9060